

ABSTRACT OF THE DISCLOSURE

A method for serial data transmission between a position measuring system and a processing unit that includes transmitting a digital data word of defined length between the processing unit and the position measuring system and having a position data request signal arrive during the transmitting of the digital data word. Determining a position signal regarding a relative chronological position of the position data request signal with respect to the transmitted digital data word and transmitting the determined position signal to the position measuring system.